

# DR. EVA C. HERBST

## PEER-REVIEWED PUBLICATIONS \* DENOTES CO FIRST AUTHOR

- 2025 Modelhart M\*\*, **Herbst EC**, Kunde AMH, Shekhibihi A, Hoffelner T, Scheibel M, Moroder P. While the bony glenoid is superiorly inclined, the glenoid surface is not. *JSES International*.
- 2025 Lappen S, Siegert P, Raiss P, Denard PJ, Werner BC, Griffin J, Shah A, Poltaretskyi S, Metcalfe N, **Herbst EC**, Moroder P. Influence of humeral liner constraint in reverse total shoulder arthroplasty on simulated range of motion in patients with various posture types – a modeling study. *The Hive Muskuloskeletal Journal*.
- 2024 Moroder P, **Herbst EC**, Pawelke J, Lappen S, Schulz E. Large variability in the degree of constraint of reverse total shoulder arthroplasty liners between different implant systems. *Bone & Joint Open*.
- 2024 Akguen D, Gebauer H, Paksoy A, Schafer F, **Herbst EC**, Karczewski D, Pastor MF, Moroder P. Differences in Osseous Shoulder Morphology, Scapulothoracic Orientation, and Muscle Volume in Patients With Constitutional Static Posterior Shoulder Instability (Type C1) Compared With Healthy Controls. *Am. J. Sports Medicine*.
- 2024 Webb NM, Fornai C, Krenn VA, Watson LM, **Herbst EC**, Haeusler M. Gradual exacerbation of obstetric constraints during hominid evolution implied by re-evaluation of cephalopelvic fit in chimpanzees. *Nature Ecology & Evolution*.
- 2023 Merten LJF, Manafzadeh AR, **Herbst EC**, Amson E, Tambusso PS, Arnold P, Nyakatura JA. The functional significance of aberrant cervical counts in sloths: insights from automated exhaustive analysis of cervical range of motion. *Proc. R. Soc. B.*
- 2023 **Herbst EC\***, Evans LA\*, Felder AA, Javaheri B and Pitsillides AA. 3D profiling of mouse epiphyses across ages reveals new potential imaging biomarkers of early spontaneous osteoarthritis. *J. Anat*
- 2023 Demuth OE, **Herbst EC**, Polet DT, Wiseman ALA, Hutchinson JR. Modern three-dimensional digital methods for studying locomotor biomechanics in tetrapods. *J. Experimental Bio.*
- 2022 **Herbst EC**, Lautenschlager S, Fioritti N, Meade L, Scheyer TM. A toolbox for the retrodeformation and muscle reconstruction of fossil specimens in Blender. *Royal Society Open Science*
- 2022 **Herbst EC**, Eberhard E, Richards C, Hutchinson JR. In vivo and ex vivo range of motion in the fire salamander *Salamandra salamandra*. *J. Anat.*
- 2022 **Herbst EC\***, Eberhard E\*, Hutchinson JR, Richards CS. Spherical frame projections for visualizing joint range of motion, and a complementary method to capture mobility data. *J. Anat.*
- 2021 **Herbst EC**, Lautenschlager S, Bastiaans D, Miedema F, Scheyer TM. Modeling tooth enamel in FEA comparisons of skulls: comparing common simplifications with biologically realistic models. *iScience 24(11)*
- 2021 **Herbst EC**, Felder AA, Evans LAE, Ajami S, Javaheri B, Pitsillides AA. A new straightforward method for semi-automated segmentation of trabecular bone from cortical bone in diverse and challenging morphologies. *Royal Society Open Science 8(8)*, figure featured on journal cover.

- 2020 | Ortega-Jimenez VM, **Herbst EC**, Leung MS, and Dudley R. Natural barriers: waterfall transit by small flying animals. *Royal Society Open Science* 7201185
- 2019 | **Herbst EC**, Doube M, Smithson TR, Clack J, and Hutchinson JR. Bony lesions in early tetrapods and the evolution of mineralized tissue repair. *Paleobiology* 45(4)
- 2018 | **Herbst EC** and Hutchinson JR. New insights into the morphology of the Carboniferous tetrapod *Crassigyrinus scoticus* from CT. *Earth Environ. Sci. Trans. R. Soc. Edinb.* 109(1-2)